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Yugoslavia EF1
Albania EG1
Rumania ED1
Bulgaria EE1
Slovenes EF7

/For information on the types of shelter provided for domesticated animals (including cattle), see scattered references in 17: Thurnher, EF6 Serbs file, category 116./

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Moldavia, where the spring and copious early summer rains and the luminous late summer provide advantageous conditions. The use of American stocks, resistant to the phylloxera, has proved successful particularly in Moldavia. Bessarabia supplies about 40 per cent of the acreage under vines, and Wallachia about 23 per cent. The quality of the wine is much below the quality of the grapes, the peasant finding the production of ţuica, a spirit simply distilled from the ubiquitous plum, a less difficult and exacting undertaking. There is no export of wine worth mentioning.

231 Before the Great War the rearing of animals, which had played an important part in the economy of Roumania in the early nineteenth century (providing an export to Turkey of sheep and horses from the lower Danube lands and of army horses to Prussia) had been giving way rapidly to grain cultivation. Since the War, however, the number of sheep, cattle and horses has increased, in spite of the great losses in the areas overrun by the enemy. The subdivision of the land into small holdings has been a factor in the increase of animals, for every peasant aims at having a few sheep, a couple of cows and a pig or two. In Transylvania, the development of cattle breeding had been scientifically encouraged, breeds peculiarly suited to various districts being improved. There are three types of permanent pasture in Roumania—the flood plain pastures of the Baltea and of the wider valleys in general, available for grazing in the winter and spring, the permanent meadows of the plains, which can be grazed only in the spring before the summer drought sets in, and the high pastures in the forest clearings, available during the summer months. The provision of winter fodder where the flood plains are not available is a serious problem, and one to which the Ministry of Agriculture is turning serious attention, for the cultivation of fodder crops is very little developed. Hay is harvested painfully one to three times in the year in the rich alpine pastures of the Carpathian valleys and is eked out in the peasant communities with maize stalks and straw. The small mountain cattle are the best milkers but of not much service for draught or for butchers' meat. The sheep is far more important in the peasant economy, providing cheese, wool for the domestic loom and mutton—for the most part dried. In Transylvania the cattle are mainly of the Hungarian steppe type with a

231 considerable admixture of cross-bred Swiss. On the Wallachian plains we find a cross between the Moldavian cattle of the plains and the Hungarian type which gives good milk, is easily fattened for market, and makes a good draught animal. Throughout the Danube plains the powerful water buffalo is important for draught purposes and for milk, and may be seen frequently also in the Transylvanian plains.

FOREST.

137 RICH in ploughland and not ill-provided with pasture, Roumania is fortunate in a third type of land utilisation which brings her vast acreage of mountainous upland into service. Forest covers about one-quarter of the land surface. Its greatest development occurs on the sandstones of the Flysch formation. Coniferous trees clothe the higher slopes above 1,400 metres, particularly on the Moldavian and Bucovinan frontiers of Transylvania. Below the coniferous forest zone with its peaty, acid soils, stretches the zone of beech forest, mixed, on its lower edge, with oak. (It is the beech forest that has given its name to Bucovina.) Here the characteristic soil is the leached, ashen-grey podsol, yielding poor crops in the clearings unless heavily manured. This zone tongues up the valleys into the coniferous zone. It widens to 100 kilometres in the Siret and Olt basins, but narrows in Muntenia, where the high mountains drop abruptly to the agricultural plains. The beech, unfortunately, has little economic value, and to this, with its poor soil, may be attributed the survival of so large a part of the beech forest. Its chief use is for firewood.

THE OAK FOREST on the lower slopes and foot hills, with its relatively rich brown soils, has naturally suffered most at the hands of settlers, and survives to-day mainly on the ridge combs and hill-tops. There are several species of oak, and hornbeam, lime and elm appear here and there in the oak forest with beech and birch on the upper margin of distribution. In Transylvania the lower hill country has been practically cleared of forest.

313 TIMBER is one of the mainstays of life of the peasant. All the constructional work of his village—dwelling house, barns,

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231 the main flock being taken direct to the sheds on the foothills where they are fed on the hay gathered during the summer, whereas the remainder are grazed on the maize stubble until about Christmas. By then the weather becomes rather severe, and although sheep are better able than cows to withstand the rigours of a continental winter they are all kept in sheds during the early months of the year.

SURPLUS ANIMALS are disposed of at the autumn fairs at Tulgheş or Topliţa where they are bought up by dealers for conveyance to Italy or Czechoslovakia.

III. OTHER OCCUPATIONS

TEXTILES.

291 THE OUTSTANDING FEATURE of the Carpathian villages is the
286 remarkably high standard of peasant craftsmanship. The degree of artistic expression revealed in their clothing is particularly striking, and although best seen on festive occasions it is scarcely less noticeable in their ordinary working garb. Wool, flax and hemp are the traditional fibres used, but imported cotton yarn is beginning to displace linen for some of the lighter summer garments. Most of the dyestuffs are obtained from local plants, for example, red
[384] from the leaves of the wild crab apple, yellow from the osier, black from the alder or birch and fawn from the walnut, but imported dyes are beginning to be employed. The mordant used is salt, but colours other than black fix themselves in wool without salt treatment.

462 SPINNING with a distaff is the normal occupation of the women in their leisure time during the summer, very little knitting being done at all. The other processes of combing, weaving and dyeing are also undertaken by the women, as is the embroidering of dresses and household linen, but the embroidering of the sheepskin waistcoats which are worn by both sexes is done by one or two men who specialise in this craft (see Plate XV).

LEATHER.

295 ALTHOUGH still made in the village, the old type of laced shoe with its characteristically pointed toe is being displaced

4:Fleure S-5 (no date)1936 ED1 Rumania ED1

3. DOMESTIC ANIMALS

422 231 The following figures were collected for two households (August 1933), one smaller and one larger:

Farm A	Farm B
3 milch cows, two on high pastures, one at the farm	7 milch cows, six on high pastures, one at the farm
No draught oxen	2 draught oxen
1 calf	5 calves
2 horses	2 horses
30 sheep	50 sheep
2 pigs	4 pigs
15 fowls	21 fowls
15 beehives, near house	4 or 5 beehives, away from house in lower pastures

Housing for geese was usually available, and several flocks with six to eight geese in each were noticed on the road. A few turkeys were observed, also a few large guinea fowl in a farm in a tributary valley. There were doves at the priest's house.

The Forestry control forbids the keeping of goats.

4. THE FARMING CALENDAR

221 Late April, early May.—Prepare soil, sow maize and potatoes, harrow hayfields.

Early May.—Sheep and some cattle and pigs go up to the high pastures.

Late May.—Peasants shear sheep on high pastures.

Early June.—Weeding and first hilling-up of maize by work with a hoe when plants are 15-20 cm. high.

Late June.—Second weeding and hilling-up of maize. General tidying-up before hay harvest.

Early July.—First cut of hay in the lower lands.

July, August and first three weeks of September.—Hay harvest. Peasants make temporary shelters when harvesting in remote spots. Hay on hills mostly stacked near the shelters used for sheep during part of the winter. Beside this is a hut for the man in charge.

September 25-October 10th.—Maize harvest.

Third week of October.—Potatoes lifted.

October.—Stock brought down from high pastures and sorted out among owners by means of earmarks.

October until first serious snow.—Sheep may be kept in remote pastures that have not been much used or reaped.

Thence until May.—Some sheep on lower hills near shelters with hay (see above, July, August). Some sheep folded on lowland fields to fertilise them. No artificial manure. Hay used as fodder. Lambing on lowland fields near homesteads.

241 PAID AGRICULTURAL labour is very rare; the work of the farm is done entirely by the peasant and his family, including women. Modern machinery is still almost unknown, so that agricultural practice is rather that of the garden than that of the field in our Western sense.

PLOUGHING IS done with a wooden plough tipped with iron and ox drawn. Sowing is done largely by hand, while intermediate operations, such as hilling the maize, are done with a hoe of the form illustrated on page 59. Harvesting, if not done by "pulling" (e.g. flax), or picking (e.g. fruit), is done by means of a sickle (maize) or scythe (hay).

[242] AMONG SOME farmers some idea of rotation of crops is understood, but only very imperfectly; in many cases it is not practised at all, the same plot of land being used for maize year after year.

ARTIFICIAL FERTILIZERS are seldom used, peasants depending for renewal of fertility upon animal manure and ploughing in and burning the stubble. Under these circumstances it is not surprising that the yield is low and crops poor in quality.

[22] SOWING BEGINS at the end of April or the beginning of May (oats) and continues until the middle of June. Harvesting begins as soon after July 20th as possible and continues until the end of October, when the last of the maize is gathered.

231 ANIMALS PLAY an important part in the agricultural economy of the Rumanian peasant. Every holding possesses sheep, particularly milking ewes, milking cows, draught oxen, perhaps a horse or horses, pigs, together with geese and fowls. Few holdings are without one or two hives of bees. Occasionally on a very small holding (less than one hectare) milking cows are replaced by goats. During the summer (from the beginning of May until the end of August) the sheep and such cattle as are not needed at the farm for draught or milking purposes are sent up to the high pastures. Pigs are sometimes sent up with them, but not goats. During this time the animals left are either fed on fodder crops at the farm or are sent out daily to pasture on a portion of the hay meadows set aside for that purpose. On being brought down from the mountains the animals are pastured for a short time on the hay meadows from which the crop has already been taken. They are then brought back to their

owner's farm, where the cows are kept in sheds, and the sheep, which are more hardy, are penned on the arable land, particularly on the maize stubble. Both sheep and cattle are fed on fodder crops during the winter. The surplus animals are sold at the autumn fair, and form a source of revenue.

WHILST ON the high pastures the sheep are clipped twice, and the wool is divided amongst the peasants in proportion to the number of animals sent up. The cheese is usually shared by the owners of the animals in the same way, the mayor and his committee being responsible for the correct apportionment. In the Valley of the Argeş co-operative dealers from Bucharest frequently buy the cheese "in bulk" direct from the commune, and the monetary value is shared between the owners of the animals.

OXEN ARE used almost exclusively for draught purposes, the numbers kept in this district being somewhat in excess of the farmers' requirements, owing to their use for lumbering (see below).

PEASANT FARMING in the Valley of the Argeş is no longer entirely on a subsistence basis. Two factors have tended to modify it. Firstly, the position of the valley, opening as it does directly on the Wallachian Plain, with its rich grain lands and containing the capital Bucharest, has allowed commercial intercourse to develop. The Argeş peasant no longer cultivates wheat; he does not mind if his maize crop is good enough for fodder only, for he can buy both wheat and maize from the plain. Further, he finds a ready market and so a money income in Bucharest for his surplus fruit, particularly apples, and cheese. Secondly, the forests form a valuable asset to the peasant. During the winter felling takes place in the upper basin of the Argeş; in spring and summer the timber is transported, and work in the State mill in Curtea goes on all the year round. Practically every household has somebody working in the timber trade, and the money so earned (as much as 100 lei per day for a man supplying his own yoke of oxen) reduces the dependence of the family on the farm.

AT CURTEA DE ARGEŞ is the School of Agriculture, Regina Elizabeta. Although only a small percentage of its pupils is local, it is gradually influencing the farming of the neighbourhood. Experiments in cultivation, plant breeding and

the use of machinery are carried on at the school. Advisers are sent out to the farms, and seeds and plants, as well as artificial manure, are supplied to the peasants at a very low cost. Machinery is also loaned out cheaply. The average peasant, however, is very conservative, and progress is slow.

SOME DETAILS OF TWO FARMS: AUGUST 1936

FARM A

SIZE: one half-hectare approximately. This farm is situated approximately two miles north of Curtea de Argeş.

THE HOLDING consists of a narrow rectangular strip, bounded on one of its long sides by a rough lane and on its short side by the main road. The ground is fairly level and sufficiently above the river to be well drained. (See Plan A for utilization of land and arrangement of buildings.)

Animals

2 milking cows, 2 calves (at farm), but no oxen (this was unusual).
10 sheep, away on high pastures.
3 pigs, at farm.
10 geese, 6 ducks, 50 hens.

FARM B

SIZE: Five hectares approximately. This farm is situated at Corbeni, several kilometres north of Curtea de Argeş, at a point where the river valley widens out and the river braids. The farm is situated on the second terrace. The plot is rectangular, with its narrow side bordered by the road and its long side running parallel to the river, thus giving a well-drained but flat holding. The son of the owner holds a diploma for agriculture and the farm shows every evidence of prosperity. See PLAN B for utilization of land and arrangement of buildings.

5: Fleure S-5 (no date)1939 EDI Rumania EDI

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Animals

5 milking cows, 2 at farm, 3 with calves away on the high pastures.
2 draught oxen.
2 bulls.
100 sheep, away on high pastures.
2 horses.
3 pigs.
30 goats at farm.
Large number of poultry (fowls and geese) impossible to estimate.
2 hives of bees in flower garden.

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AGRICULTURAL CALENDAR

April.	Preparation of ground, sowing of oats and vetch. Sheep go up to low hill pastures.
May.	Sowing of maize, potatoes, beans. May 1st, sheep go to high pastures.
June.	Sowing of fodder crops; all sowing finished by middle of month.
July.	Early part of month, first cutting of hay, making and collecting. July 20th, beginning of harvest, i.e. flax, cherries, oats and barley.
August.	Middle of month, second cutting of hay, oat harvest, plum harvest, followed by apple and walnut harvest. Harvesting and retting of hemp. Some ploughing of grain stubble. August 31st, sheep return from high pastures to low hill pastures.
September.	Beginning of maize harvest, sheep penned on maize stubble as soon as possible.
October.	End of maize harvest according to season.
November to March.	Sheep penned on maize fields, cattle kept in sheds and fed on hay and fodder crops.

A. R. B.

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Mould for hay fork

RUMANIA

243 The following were the average prices of the principal cereals at the port of Constantsa per ton during the years 1928–1931, according to the bulletin of the Constantsa Chamber of Commerce:

	1928	1929	1930	1931
Barley ...	5,900	4,580	2,430	1,600
Oats ...	3,400	2,440	1,800	1,520
Maize ...	5,280	4,010	2,600	1,800
Wheat ...	5,280	4,010	2,600	2,550

241 433 If it be remembered that the value of the agricultural production of Rumania constitutes about 60 to 65 per cent of the whole national revenue, it is easy to realize what a terrible strain such a sudden and brusque diminution in the resources of the country is likely to throw on the entire structure of its economic and social life. For the period of 1926–28 the national revenue was computed at 171 milliard lei, of which 110 milliards were derived from agriculture. According to the *Argus* of February 13th, 1932, this last figure for 1931 had declined to 46.5 milliards.

245 Among the 613,614 hectares occupied by orchards and vineyards, some 209,321 hectares are planted with plum trees which yield an annual average crop of about 5 million quintals of fruit, the yields for the years 1928–30 being respectively 28, 9.5, and 14.6 quintals per hectare. The vine is also very extensively cultivated, 239,825 hectares being planted with it. In 1930 the amount of wine obtained from the grapes grown attained about 8,385,374 hectoliters, about half of which was produced in Bessarabia.

241 231 The position of the livestock population in a country of small farmsteads like Rumania is liable to exert a great influence on agriculture, for not only are horses and horned cattle used as draught animals, but their manure is the only kind of fertiliser applied to the fields, so that the gradual reconstitution of the livestock situation after the serious damages inflicted on it during the war is a reassuring sign. The recovery would have been much more rapid if the export taxes on cattle and meat had not discouraged the cattle breeders by unduly restraining exports. The following

figures show the livestock population during the pre-war period and for the years 1926 and 1930:

Livestock.	Pre-war figures for all regions forming part of present-day Rumania.	1926.	1930.
Horses and donkeys ...	2,678,000	1,890,000	1,818,560
Horned cattle ...	6,760,000	4,992,000	4,011,141
Sheep and goats ...	15,250,000	14,059,000	12,273,347
Pigs	4,634,000	3,168,000	2,322,971

BANKING

The meagre capital resources of Rumania proved inadequate to the task allotted to them after the war and the general dislocation it had caused. Banks were called upon to finance the reparation of the damage suffered in the territories of the old kingdom, to advance moneys to the rural population which had just been endowed with land, and to furnish capital for the execution of the policy of industrialization to which the country had committed itself. The banks were subjected to a heavy strain, but owing to the financial assistance they received from foreign banking firms this was somewhat relieved. Unfortunately, very often less circumspection than the situation called for was shown in the granting of credits, for in many cases other considerations than those obtaining in Western countries prevailed, and as a result several banking firms were put in jeopardy through immobilization of too great a share of their assets in industrial undertakings.

The report of the experts on the liquidation of the Bank Dacia, of Iassi, published in the *Argus* on June 17th, 1931, is sufficiently enlightening on the subject. This bank, the total capital of which was only 20 million lei, had invested 70 millions in industrial enterprises, and the managers were blamed for not having asked for the winding-up of the bank when they no longer disposed of even one-third of the capital, as was stipulated in the statutes.

According to official statistics, at the end of 1929 there were in existence 1,097 banks, with a paid-up capital of 11,180 million lei. The great majority, however, were very small concerns which hardly deserve the preten-

241 433 ploughing was very superficial. Apart from a few small regions the whole of Greater Rumania's agriculture was extensive and not intensive. That is, crops were harvested year after year without regard to the soil and without any attempt to preserve its fertility. This is one of the reasons for the fact that in spite of much higher soil fertility the average yield per acre in Greater Rumania was far below that in Great Britain.[1]

In addition to the growing of grains and potatoes, the production of industrial crops was begun in the nineteen-thirties and has since made considerable progress, especially that of oil-seeds, flax, cotton, soya beans and sugar-beet. The development of fodder production has made little progress, owing to a decrease in livestock.

231 483 LIVESTOCK. Rumanian livestock, especially horses, were well known and eagerly bought during the last century. The country was famous for its hardy and fast geldings and exported many horses to Germany, Denmark and Austria-Hungary. From 1886 onwards, when Hungary closed her frontiers to the import of Rumanian livestock, there began a rapid

[1] Average yield in cwt. per acre in the year 1937–8:

	Rumania	Gt Britain	Germany	Greece
Wheat	9·8	16·0	18·0	8·2
Barley	5·1	13·2	17·0	9·0
Oats	5·2	16·3	26·0	7·9
Rye	8·2	13·3	13·3	7·9
Maize	7·5	—	—	10·1
Potatoes	43·0	121·0	152·0	68·0
Flax	3·1	12·0	5·0	—

(From the Statistical Records of the League of Nations.)

12: Kormos S-4, 5 (no date) 1944
ED1 Rumania ED1

decline which during the Great War assumed very serious proportions. Within a short period the Old Kingdom lost more than half of its total livestock. These losses were only partly made good by the acquisition of the New Territories.

In 1921 Greater Rumania had about 1,700,000 horses of which more than half were in the New Territories. There are two main races, both much smaller and lighter and more short-lived than the heavy type of English cart-horse. The horse of the plains, similar to and often crossed with the Hungarian horse, is found in Muntenia and in the western provinces, the Russian horse in Bessarabia and in the Bukovina. The mountain horse is small and tough and is chiefly used for the carrying of loads.

Cattle breeding has been one of the weakest points of Rumanian agriculture for some time. Although Greater Rumania by the acquisition of territories from Hungary and Austria obtained some high-class cattle, there was on the whole a decline both in quality and in quantity.[1] The decline in quality is due to the widespread use of cows as draught-animals and to inbreeding. The import of good foreign stock has been on an insufficient scale to improve this position, although some regions in Transylvania and the Banat have been able to maintain their good stock. The decline in numbers is due to the increase of meat exports and the absence of any planned breeding policy. The consumption of both milk and meat amongst the peasants is extremely low.

[1] '1921: 5,700,000; 1932: 4,400,000. It is safe to assume that this downward trend continued.

12: Kormos S-4, 5 (no date) 1944
ED1 Rumania ED1

231 For the majority of Rumania's peasants the most
433 valuable of all animals are his sheep, of which Greater Rumania possessed about 12,000,000. Both the wool and the meat of Rumanian sheep are, however, of a lower quality than those of Great Britain or New Zealand. Sheep's milk, and the cheese made from it, supplement the monotonous diet of the peasant.

[439] Of the 3,000,000 pigs in Greater Rumania most were kept in the New Territories and a large proportion of the country's pork production was exported. Apart from the Rumanian Mangalita, English Berkshires were bred in great numbers.

241 Considered as a whole the agriculture of Greater Rumania, favoured by good climatic conditions and great soil fertility, remained undeveloped owing to the general economic conditions. The peasantry did not possess the necessary implements, buildings or animals which could have secured profitable ex-
[452] ploitation of the soil. Financial help was difficult to obtain, and the loans that were granted were ruinous to the peasant, owing to the high rate of interest.
[453] Co-operatives were few. Some agricultural banks and associations confined to the German colonists in the Banat and in Transylvania were the only ones
[435] which succeeded. Agricultural prices were low and the peasant was often forced to sell his produce before the harvest to export trusts which dominated
[654] the market. The only assistance given by the government consisted in loans and seeds at reduced prices for the growing of certain crops, such as soya beans, for export in order to fulfil international trade
[439] agreements. During the last fifteen years Germany secured an ever greater influence upon Rumania's agriculture and took most of its exports.

241 The basis of Rumanian economy is agriculture, in that some 80 per cent. of the population derive their livelihood from the land and agriculture provides a high proportion of the national income. [315] During recent years, however, the expansion of the oil industry has meant that agricultural pro- [439] duce has played a decreasing part in the country's exports, having been superseded by oil, exports of which amounted to 43 per cent. of the total export trade in 1938, compared with 19 per cent. in 1927; while grain exports in 1938 represented 23 per cent. compared with 46 per cent. in 1927.

In spite of the importance of agriculture to national prosperity farming methods are backward and per acre crop yields are among the lowest in Europe. Attention is particularly given to growing cereals, and of these maize is the chief, providing a large surplus for export (apart from [231] the war years). Livestock density is low, which is one of the weaknesses of Rumanian agriculture, the Banat being the only district in which numbers [439] are fairly high, and farming approaches the intensive system. It must be stressed that the relatively large export surplus, which consists of wheat, maize, barley, oilseeds and pulses, live- stock, oilcake, etc., is only made possible by [146] the very low nutritional level which prevails, and that if this were raised to anything like western European standards exports would be commensu- rately reduced.

248 Since the war more attention has been paid to
249 the growth of industrial crops such as sunflower, soya, cotton, hemp and flax and the cultivation of rubber-bearing plants has been started following the finding of the *Kok Saghys* plant left by the Russians in Bessarabia. Though some success has been achieved in increasing the areas under textile fibres, and yields have been slightly higher, the hoped for increases in soya and sunflower cultivation have not been achieved due to un- favourable weather conditions and to general wartime dislocation.

313 Rumania's forest resources, though extensive, have suffered severely from a consistent policy of over-exploitation, and, while providing the basis of a fairly important industry during the period between the two wars, have been so depleted that cutting will have to be very restricted for a number of years if they are to be allowed to recover. The loss of Northern Transylvania has affected the timber industry in particular, as a high proportion of the forest resources were located there, and in that district this industry was better developed than elsewhere in the country.

IMPORTANCE OF OIL

315 Oil plays a major part, not only in Rumania's foreign trade, but also in covering her domestic fuel requirements, to a large extent replacing coal, reserves of which are small and of low quality. Since the war and the resulting pressure which Germany has exerted to obtain increased quantities of oil for her armies, (combined with the consistent drop in the rate of production be- tween 1936 and 1941), serious attempts have been made to find alternative sources of fuel. The enormous reserves of natural gas existing in Transylvania, which were exploited only very slightly before the war, are being used increasingly as a source of fuel to supply local industries, and a

241 peasant views with suspicion and often hostility all attempts at improvements in traditional [474] methods. Even the co-operative societies have made less progress than in other Danubian countries. There is need for considerable capital expenditure in grouping small farms into larger units, in providing better buildings, more implements and fertilisers. There is need for diversification of production—more fodder crops and more animal husbandry. Above all, there is need for development in industry and commerce to provide work for the surplus agricultural population.

2. Natural Conditions and Regions

132 The climate is of the extreme Continental type, with long hot summers and severe winters. Precipitation is largely concentrated in winter and early summer. During the greater part of the growing and ripening season rains are light, and from time to time serious droughts occur which may ruin the grain crops.

133 The agricultural regions correspond to the natural divisions into plain and hill country—the 311 Danube plain and Bessarabia which comprise the greater part of the territory and produce the bulk of the crops, and the hilly and mountainous land of Transylvania and the Bucovina.

The plain is well-suited for agriculture, the soil [134] over much of it being of the fertile *cherozem* or black earth type, but the backward methods of farming and the light rainfall keep yields per acre low.

This region is not equally backward in all parts. The Rumanian Banat at the western end of the country, and formerly part of Hungary, is more prosperous and progressive. The population is [162] not purely Rumanian but includes Swabians and Saxons, descendants of the German stock systematically settled there on medium-sized peasant holdings in the eighteenth century after the cession of the territory to Austria by the Turks. Methods and yields, by Rumanian standards, are good. [231] The livestock density is higher than the average and the area produces a substantial surplus of pigs. Rural overcrowding is not as marked as elsewhere.

241 Conditions of life and methods of farming are 133 considerably worse in the plain land of the Old Kingdom. Agriculture here is as primitive as in any part of Eastern Europe, depending on an unbroken alternation of wheat and maize cultivation with little subsidiary production. Some wheat is marketed, but the maize is grown largely [311] for consumption on the farms. So little land is available per head of population that the farm population and working animals (which eat the maize stalks) can be fed only by devoting an excessive acreage to maize.

Bessarabia makes up the remainder of the plain land; conditions of settlement and farming methods are much the same as in the Old Kingdom, but the density of population is lower and there are substantial grain exports.

Given normal yields, every district of the plain area is at least self-sufficient in foodstuffs; indeed parts of it regularly produce large grain surpluses. Transitional areas between the Danube Valley and the Transylvanian plateau, such as the Carpatho-Moldavia and Carpatho-Muntenia areas, may,

[6c]

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*Production of Principal Crops**
Average 1935-38
('000 *metric tons*)

Wheat	3,077
Rye	430
Barley	1,071
Oats	604
Maize	5,215
Potatoes	2,010
Sugar beet†	570
Peas	45
Beans	230
Tobacco	12
Sunflower seed	177
Soya beans	42
Rape seed	48

* Pre 1939 frontiers.
† This produced 110,000 m. tons of raw sugar

●231 **4. Livestock**

One of the chief weaknesses of Rumanian agriculture is the low density of livestock. Numbers of cattle per 100 acres of farm land are less than half those of this country and Germany; about half the farms possess no cows. A large proportion of the cattle, moreover, are draught animals which require land to feed them but which yield little saleable produce. Moreover, the annual milk [234] yield per cow averages less than 1,350 litres (300 gallons) as compared with over 700 gallons in Denmark.

Of pigs, the numbers and quality compare even less favourably with those of other countries. Only in the Banat district is there an approach to an interlocking of grain production with pig-raising. Sheep are an important source of income to the peasants of the Transylvanian mountains, a region where water buffaloes are kept as draught animals since they require no sustenance other than a daily cold bath and a few maize stalks.

Livestock numbers in 1938, and the production of livestock products in 1935-38, were as follows:—

*Livestock Numbers**
'000 head

Horses	2,158
Cattle	4,161
(including cows)	(2,030)
Buffaloes	165
Sheep	12,768
Goats	399
Pigs	3,165
Poultry	34,000

* Pre-1939 frontiers.

*Production of Livestock Products**
Average 1935-38
('000 *metric tons*)

[234]

Milk‡	3,000
Butter	20
Cheese	30
Beef and veal	120
Mutton and lamb	20
Pork	152
Poultry meat	60

* Pre-1939 frontiers.
‡ Cows, buffaloes, sheep and goats.

228 **5. Fish**

[656] All fishing along the Danube, including the mouths of the delta, and along the western shores of the Black Sea coast, is controlled by the State Fisheries Administration. The total annual catch in State-owned waters averaged 15,000 tons in the years immediately preceding the war, of which fresh-water fish contributed more than two-thirds. This does not, however, represent the total catch, as fairly large quantities were caught

.7L]

241 654 Alongside this organisation the State ran certain technical services for agriculture, distribution of tested seeds, control of weights and measures, provision of bull and stallion services from its own stud farms. This work, however, remained less developed than in other S.E. European countries.

8. Agricultural Exports

241 231 439 Rumania was the largest grain exporter in Europe. By value, grain accounted for over half the total of agricultural exports. Livestock products, mainly live pigs and cattle, amounted to approximately one-fifth of the total, the remainder consisting of peas, beans, oilseeds, oil and oilcake, eggs and small quantities of fruit. Quantities exported on the average in the years 1935 to 1938 are shown below :—

*Exports of Principal Agricultural Commodities**
Average 1935-38
('000 *metric tons*)

Wheat	686
Maize	543
Barley	397
Peas	21
Beans	43
Oilseeds	108
Vegetable oils ..	3
Oilcake	103
Cattle ('000 head) ..	48
Pigs ('000 head) ..	322
Eggs	10

* Pre-1939 frontiers.

241 439 It is of interest to note that, despite German hopes of a development in oilseed cultivation and exports, no increase had been achieved up to the eve of the war. German interest had succeeded in stimulating production and exports of soya beans, but there was no expansion in total oilseed exports owing to a decline in rape seed and to an increase in domestic consumption of oil.

German purchases of Rumanian agricultural exports were increasing in recent pre-war years. In 1939 the territories of Greater Germany took 25 per cent. of the wheat exports, half the feed grain and the bulk of the oilseeds. Italy also took appreciable quantities of grain.

9. Food Consumption

146 262 The Rumanian diet is perhaps the worst-balanced in south-east Europe. The outstanding feature is its high dependence on grain, which provides three-quarters of the calories and 70 per cent. of the protein. In the towns white wheat bread is eaten except by the very poor, whilst in the country wholemeal bread or maize is usual. Over large areas, particularly in the Old Kingdom, maize forms the chief food. (Taking the country as a whole maize consumption is two-thirds higher than wheat.) During the summer months, when work is very heavy, peasant families may eat as much as 3 kg. (6½ lb.) a head daily, almost always in the form of *mămăliga* (a kind of porridge).

The rest of the rural dietary consists chiefly of beans, some potatoes (especially in Transylvania), cabbage, beetroots, carrots, onions and a certain amount of cheese and milk. Consumption of all these foods is much too low by nutritional standards. Meat is rarely eaten, except at Christmas time when a pig is killed—for the rest of the year small amounts of fat salted pork are used, more or less as a flavouring. Some fish is eaten in villages near rivers. Vegetable oils—mainly sunflower—and pig fats are used for cooking; butter is rarely eaten.

lar, for grain, oilseeds and livestock products to provide the balance of food and fodder requirements which she could not obtain from her own agriculture. The normal grain surpluses and the potential output of sunflower and other oilseeds appeared sufficiently large to provide a solid basis for these expectations. Owing, however, to wartime dislocations of economic life, to the absence of adequate administrative control of farming, to the lack of co-operation by the peasants, and, above all, to a succession of unfavourable seasons, these hopes have been almost entirely falsified.

Firstly, in 1940, Rumania lost Bessarabia, her principal surplus region, to the U.S.S.R., and with it all that year's crops. When she regained it in 1941 she obtained no surplus out of that harvest, and, because of disorganisation, little in 1942. In rump Rumania, in 1940 and 1941, the grain harvests were substantially below the average owing to reduced sowings (partly caused by mobilisation) and to disappointing yields. A determined effort was made by propaganda and the release of labour to bring sowings back to normal for the 1942 season. But the early onset of an unusually severe winter again reduced the sowings, while a serious drought in the summer of 1942 reduced the yields.

There was a deficiency in wheat sowings of over a million hectares, while grain yields were barely 60 per cent. of the average. The out-turn of the year was consequently worse than that of the two preceding years. Wheat and rye yielded only 1·3 million tons compared with an average for the territory of 3·6 million tons. The maize crop was a little less than 3 million tons compared with an average of 4·7 million tons. The total grain production was about 5·5 million tons, a quantity inadequate to meet the requirements of food and fodder at any approach to normal levels.

Other crops were more successful in 1942, but they could not appreciably offset the disastrous grain results. The potato crop reached an average level for the first time during the war years, and part of it was used to stretch the deficient wheat for bread making. There was also a good crop of beans and peas, largely because, as their prices were not controlled, they were very remunerative crops. The sunflower crop, though sowings failed to reach the ambitious target and yields were only 90 per cent. of normal, was of record dimensions. Soya, rape and sugar beet declined, however, from earlier levels. (A significant supplementary supply of sugar is now being obtained from Transnistria.)

These for the most part poor crop results, besides curtailing the supplies available for human consumption and exports, also brought about a reduction in livestock numbers at the end of 1942. Livestock numbers may, however, have increased somewhat in 1940 and 1941, for it was reported that peasants held back more grain than usual in those years for livestock feeding. If this is true, numbers would now probably be little different from those of pre-war years.

Crop prospects for 1943 point to a more normal result. The winter of 1942-43 was late and mild, making it possible to sow a near-average acreage of winter crops. Preparatory work for spring sowings was also done in good time, and on the whole the weather subsequently has not been unfavourable.

Tobacco cultivation appears to have declined in the war years, principally because the prices were even more unattractive than those of grain. In 1942 the area sown was reported to be little

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248 sack and rope requirements; and a hemp and flax office has been established with a capital of 20 million lei and a credit of 500 million to distribute seed and manure, and to rent and finance retting and scutching plants. This office, which is the only purchaser of these fibres, is to make no profits, and prices are to be fixed. Fifteen up-to-date plants are to be erected in 1943 in the hemp-growing areas.

[439] Although Rumania normally had little or no export balance, Germany in 1942 demanded 15,000 tons of the 20,000 tons available. How much of this was actually delivered is not known, but the shortage of hemp and other fibres has led to amazing competition between the various industries for the remaining supplies, and a hemp rope and sack factory is to be built at Chișinău [288] in Bessarabia, where the shortage of these goods is particularly acute.

4. Flax

Flax appears to be the only crop grown on a smaller area in 1943 than in 1941 and 1942, when 20,000 ha. (49,400 acres) were planted, as compared with 15,000 ha. (37,000 acres) in 1938 and 12,000 ha. (29,600 acres) in 1939. Preference, apparently, is to be given to hemp. The pre-war output was about 10,000 tons, but no reliable figures are available since 1939. Normally, there was no appreciable export of flax, but as with other fibres, the Germans appear to have been persistent in their demands. The Rumanian company, Fuiorul Cotonese, in which German capital participates, is to build flax-retting tanks at Cereteni (in the district of Dolj) and Zimnicea (in the district of Teleorman).

5. Rayon and Staple Fibre

288 There were two plants erected before the war, the "Apretura" at Popești-Leordeni and the Viscosa Românească at Lupeni, the combined daily capacity of which was 12 tons of rayon and 6 tons of staple fibre. (Approximately 4,200 tons rayon and 2,100 tons of staple fibre annually.) There has been but little expansion since, and the present annual production is estimated at 4,400 [439] tons rayon and 2,600 tons staple fibre. Imports from Italy have been 450 tons in 1940, and 2,500 in 1941. Germany promised substantial quantities, but it is doubtful whether they fully materialised. Applications for permission to erect a new pulp mill have been made by both German and Italian interests, but it seems that the Germans objected to Snia Viscosa's being granted a concession and obtained it themselves later.

6. Silk

● 231 Although Rumania is within the orbit of the silk belt, output is small, reaching a maximum of 20 tons of cocoons in pre-war years, and 35 tons of reeled silk were imported, principally from Italy. Silkworm breeding is located in the Banat, and in common with the drive for increased silk production in German Europe, Rumania has made efforts to increase silkworm breeding.

288 In 1937 about 5,000 workers were engaged in silk weaving (probably including artificial silk); this number was increased to 7,336 in 1941. It is reported that the cocoon crop is now delivered to the Air and Marine Ministries, presumably for making cartridge bags, etc.

7. Other Fibres

248 Raw jute imports averaged about 5,500 tons 439 annually before the war, and in addition there were smaller imports of jute cloth and bags